RDK-B Boot time data automation

Build a boot-time image

$ repo init -u https://code.rdkcentral.com/r/manifests -m rdkb-raspberrypi.xml -b morty

$ repo sync -j4 --no-clone-bundle

$ source meta-cmf-raspberrypi/setup-environment

Select raspberrypi-rdk-boot-time-broadband.conf

$ bitbake rdk-generic-broadband-boot-image

After the build is completed , flash *.rootfs.rpi-sdimg from the path build-raspberrypi-rdk-boot-time-broadband/tmp/deploy/images/raspberrypi-rdk-boot-time-broadband/

$ sudo dd if=*.rootfs.rpi-sdimg

Extend the size of rootfs

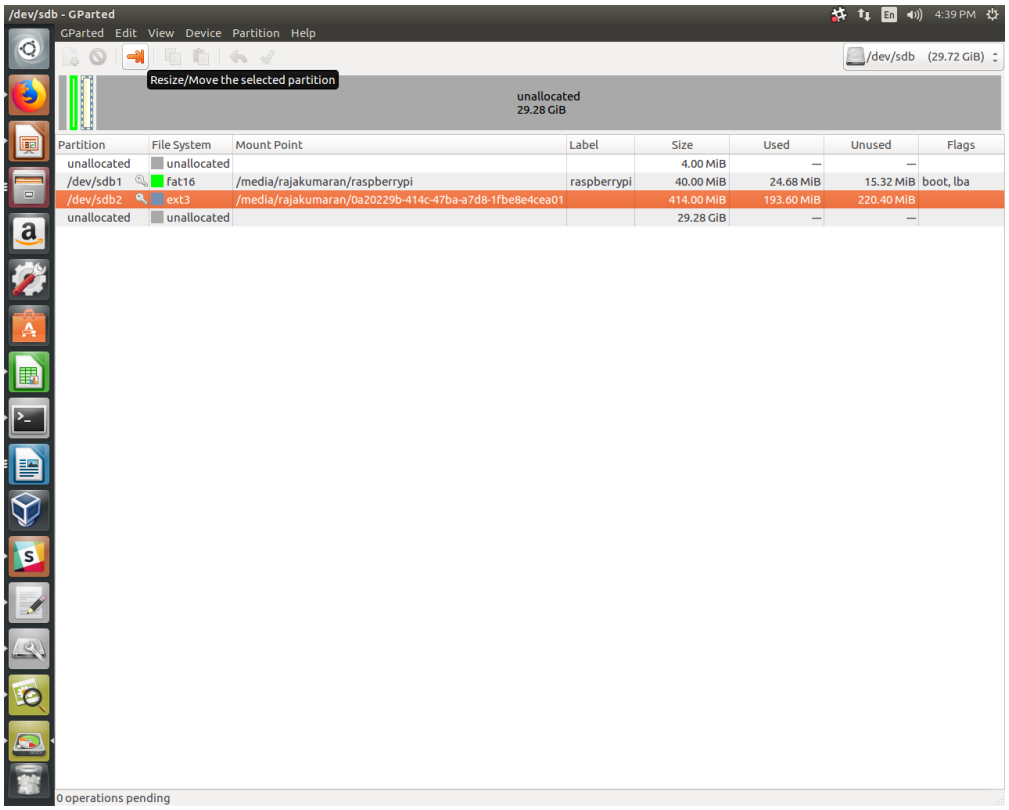
Extend the size of rootfs to 420 MB not more than that. So that newly created partition could occupy the dedicated space.

To extend the size use gparted on your linux PC.

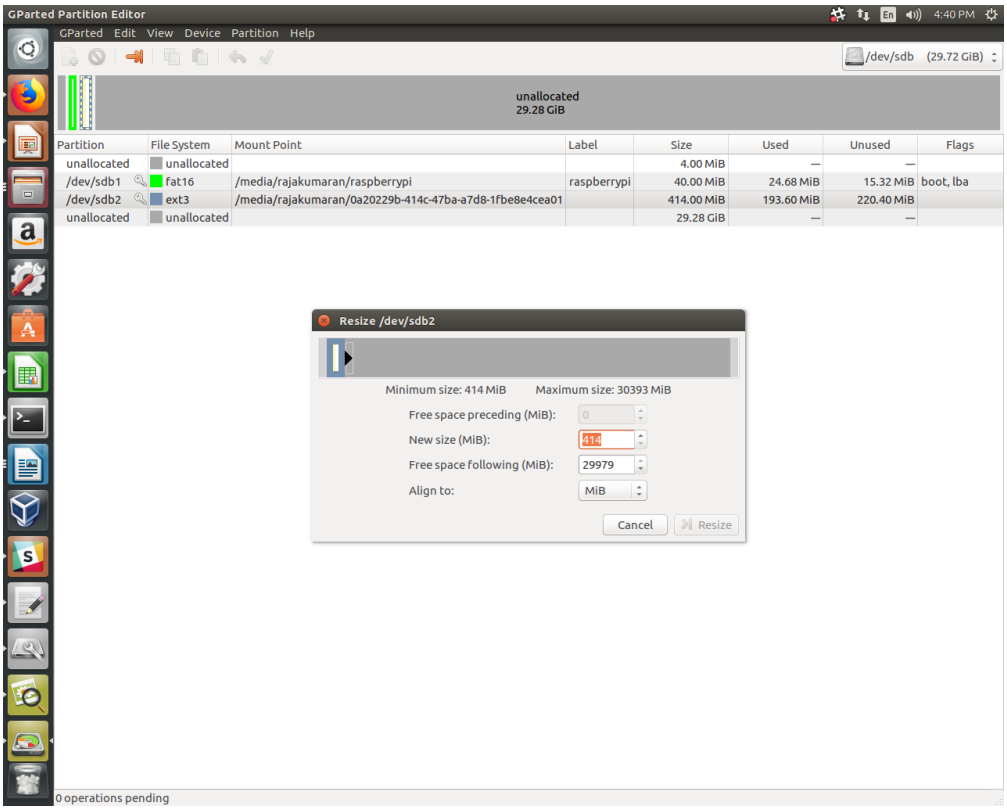
$ sudo gparted

On the UI

1) Select ext3 partition and click on resize



2) Resize the New-size (MB) attribute to 420 M and click on resize



Place the sd-card on rpi board slot .

On Virtual Machine(VM)

Create a file named boot-info.txt on the path ~/ (/mnt/home) at your VM.

Note: Do not change the name of the file or change the location , Create it as it is mentioned above.

In your boot-info.txt place the following info

$ vi ~/boot-info.txt

Credentials**:cm5hcmF5YW5hbjpDb21jYXN0==** (Encoded base 64 rdk.wiki.central credential)

Imagepath:/mnt/home/rdkb/daily-build/build-raspberrypi-rdk-boot-time-broadband/tmp/deploy/images/raspberrypi-rdk-boot-time-broadband (The path where our rootfs resides after bitbake)
Sourcepath:**/mnt/home/rdkb/boot-time/test1** (Path where your rootfs tar will be present on your VM)

Use this link to convert Encoded Credential https://www.base64encode.org (Enter your Credential in the following format **username:password**)

Make sure the Sourcepath directory is present, if not create it using **mkdir -p /mnt/home/rdkb/boot-time/test1**

Here is a sample boot-info.txt

Credentials:cm5hcmF5YW5hbjpDb21jYtre0MTIzIQ==
Sourcepath:/mnt/home/rdkb/rajkumar-A/test1
Imagepath:/mnt/home/rdkb/daily-build/build-raspberrypi-rdk-boot-time-broadband/tmp/deploy/images/raspberrypi-rdk-boot-time-broadband

Create ~/repo.sh with following content

```
#!/bin/sh
RUNAT="Wednesday:12:00"

source=$(cat ~/boot-info.txt | grep Sourcepath | cut -d ":" -f2)
echo $source

imagepath=$(cat ~/boot-info.txt | grep Imagepath | cut -d ":" -f2)
echo $imagepath

while [ 1 ]
do
   DATE=`/bin/date +%A:%H:%M`
   if [ $DATE. = $RUNAT. ]
   then
      rm -rf daily-build
      mkdir daily-build
      cd daily-build
      repo init -u https://code.rdkcentral.com/r/manifests -m rdkb-raspberrypi.xml -b morty
      repo sync -j4 --no-clone-bundle
     MACHINE=raspberrypi-rdk-boot-time-broadband source meta-cmf-raspberrypi/setup-environment
     cd build-raspberrypi-rdk-boot-time-broadband
     bitbake rdk-generic-broadband-boot-image -f
  fi


      if [ -f  ${imagepath}/*.rootfs.tar.bz2 ]
      then
      echo " Build is been initiated and completed "
          cp ${imagepath}/*.rootfs.tar.bz2 ${source}
      sleep 10
            stat ${source}/*.rootfs.tar.bz2 | grep "Size" | cut -d " " -f4 > ${source}/filesize.txt
      sleep 30
      rm ${imagepath}/*.rootfs.tar.bz2
      fi
```

Change mode and run the script

```
$ chmod 777 ~/repo.sh
```

Execute the script with .(dot)

```
$  .  repo.sh &
```

As mentioned on the script it initiates the build at "Wednesday:12:00" , It could be changed.

On Board

Once Board is up and running scp key-file into image /home/root/

Rename the VM key-file to keyfile , as the script on image uses it.

```
$ mv "key-file" keyfile
```

Copy the key-file to kernel partition for further rootfs flash

```
$ mount /dev/mmblk0p1 /mnt

$ cp /home/root/keyfile /mnt
```

Now Keep the VM details on kernel partition

```
$ vi /mnt/vm-info.txt
```

Add the below information

Port:22 (Remove 22 and your VM port Number, if there is no port number make it 22)

Machine:rdkb (Remove rdkb and enter your VM name)

ip:96.118.156.223 (Remove the ip and add your VM ip)

```
$ umount /mnt
```

Reboot the image

```
$ reboot
```

Once the build is completed on VM it will be copied and boot -time info uploaded on the following page RDK-B Boot time data plot.